

**AMENDMENT AND PETITION FOR ONE  
MONTH EXTENSION OF TIME**  
Patent Application Serial No. 09/698,558  
Reply to Office Action Mailed July 29, 2003  
Art Unit: 3725

**Attorney Docket No.: Case 6103**

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**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): A top grinding ring for an EL type pulverizer comprising at least one integral snubber ~~formed~~ cast as part of the parent material of the top grinding ring ~~easting~~ and formed as a contour change on an outer edge of the top grinding ring ~~easting~~, and a plurality of equally spaced apart flutes extending downwardly from the outer edge of the top grinding ring.

Claim 2 (currently amended): The top grinding ring according to claim 1, wherein the ~~at least one~~ integral snubber ~~formed as part of the original material of the top grinding ring easting~~ is oriented at an angle  $\alpha$  with respect to a radial line originating at a center of the grinding ring, angle  $\alpha$  having a value within a range of approximately 15 degrees to approximately 65 degrees.

Claim 3 (original): The top grinding ring according to claim 2, wherein angle  $\alpha$  has a value of approximately 28 degrees.

Claim 4 (original): The top grinding ring according to claim 1, further comprising a continuous arcuate grinding track formed on a bottom surface of the top grinding ring and adapted to receive a plurality of pulverizer balls each having an OD and circumference which roll against the arcuate grinding track.

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Claim 5 (currently amended): The top grinding ring according to claim 4, wherein the continuous arcuate grinding track has an arcuate length that is at least 29% of the circumference of one ~~pulverizer ball~~ of the plurality of pulverizer balls.

Claim 6 (canceled)

Claim 7 (currently amended): The top grinding ring according to claim ~~[[6]]~~ 1 wherein the total circumferential length of all the equally spaced apart flutes exhibits an arcuate length of at least 50% of the total available circumference at the outer edge of the top grinding ring.

Claim 8 (currently amended): The top grinding ring according to claim 4, wherein the continuous arcuate grinding track ~~formed on a bottom surface of the top grinding ring~~ has a diameter which is held to a circular tolerance within  $\pm 1/16$ ~~[["]]~~ inches of its ultimate concentricity.

Claim 9 (currently amended): The top grinding ring according to claim 5, wherein the continuous arcuate grinding track ~~formed on a bottom surface of the top grinding ring~~ has an arcuate length which is held to a circular tolerance within  $\pm 1/16$ ~~[["]]~~ inches of its ultimate curvature.

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Claim 10 (currently amended): The top grinding ring according to claim 1, comprising a plurality of integral snubbers ~~formed as part of the parent material of the top grinding ring casting as a contour change on an outer edge of the top grinding ring casting,~~ each of the integral snubbers of ~~said plurality of snubbers~~ being equally spaced around a circumference of the top grinding ring.

Claim 11 (currently amended): An EL type pulverizer, comprising: a housing, a top grinding ring having a continuous arcuate grinding track formed on a bottom surface of the top grinding ring and adapted to receive a plurality of pulverizer balls each having an OD and circumference, and at least one integral snubber formed ~~cast~~ as part of the parent material of the top grinding ring casting and formed on an outer edge of the top grinding ring casting; and, snubber attachment means attached to the housing for securing the at least one integral snubber to the housing, and a plurality of equally spaced apart flutes extending downwardly from the outer edge of the top grinding ring.

Claim 12 (currently amended): The pulverizer according to claim 11, wherein the snubber attachment means comprises a snubber bracket assembly including a snubber bracket secured to the pulverizer housing, a wear plate secured to the ~~at least one~~ integral snubber, and a shim pack disposed therebetween for adjusting a clearance between the snubber wear plate and the snubber bracket.

Claim 13 (currently amended): The pulverizer according to claim 12, wherein the snubber attachment means is removably secured to the pulverizer housing and to the ~~at least one~~ integral snubber to permit the snubber attachment means to be installed and dismantled from the pulverizer housing subsequent to top grinding ring installation and

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removal, the shim pack providing means to adjust or eliminate the clearance between the snubber wear plate and the snubber bracket.

Claim 14 (currently amended): The pulverizer according to claim 11, comprising a bottom grinding ring having a continuous arcuate grinding track formed on a top surface of the bottom grinding ring and adapted to receive a plurality of pulverizer balls each having an OD and circumference which roll against the continuous arcuate grinding track, the bottom grinding ring having an arcuate length that is at least 23% of the total circumference of one ~~pulverizer ball~~ of the plurality of pulverizer balls.

Claim 15 (currently amended): The pulverizer according to claim 14, wherein the continuous arcuate grinding track formed on the top surface of the bottom grinding ring has a diameter which is held to a circular tolerance within  $\pm 1/16$ [[']] inches of its ultimate concentricity.

Claim 16 (currently amended): The pulverizer according to claim 14, wherein the continuous arcuate grinding track formed on a top surface of the bottom grinding ring has an arcuate length which is held to a circular tolerance within  $\pm 1/16$ [[']] inches of its ultimate curvature.

Claim 17 (currently amended) The pulverizer according to claim 11, ~~comprising a plurality of pulverizer balls each having an OD and circumference which roll against the arcuate grinding tracks of both the top and bottom grinding rings, wherein~~ each of the

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plurality of pulverizer balls ~~having~~ has a nominal OD of one of 12-1/4 inches and 13-5/8 inches when in a new condition and first installed in the pulverizer.

Claim 18 (currently amended): A top grinding ring for an EL type pulverizer comprising a plurality of equally spaced apart flutes extending downwardly from an outer edge of the top grinding ring, a continuous arcuate grinding track formed on a bottom surface of the top grinding ring and adapted to receive a plurality of pulverizer balls each having an OD and circumference which roll against the arcuate track, wherein the continuous arcuate grinding track has an arcuate length that is at least 29% of the circumference of one ~~pulverizer ball~~ of the plurality of pulverizer balls.

Claim 19 (currently amended): The top grinding ring according to claim 18, wherein the continuous arcuate grinding track ~~formed on a bottom surface of the top grinding track~~ has a diameter which is held to a circular tolerance within  $\pm 1/16$  ~~[["]]~~ inches of its ultimate concentricity.

Claim 20 (currently amended): The top grinding ring according to claim 18, wherein the continuous arcuate grinding track ~~formed on a bottom surface of the top grinding ring~~ has an arcuate length which is held to a circular tolerance within  $\pm 1/16$  ~~[["]]~~ inches of its ultimate curvature.

Claim 21 (currently amended): ~~A bottom grinding ring for an~~ An EL type pulverizer comprising a top and a bottom grinding ring, a continuous arcuate grinding track formed on a top surface of the bottom grinding ring and adapted to receive a plurality of pulverizer

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balls each having an OD and circumference which roll against the arcuate grinding track, wherein the [continuous arcuate] grinding track has an arcuate length that is at least 23% of the circumference of one ~~pulverizer ball~~ of the plurality of pulverizer balls, and a plurality of spaced apart flutes extending downwardly from an outer edge of the top grinding ring.

Claim 22 (currently amended): The ~~bottom grinding ring~~ pulverizer according to claim 21, wherein the continuous arcuate grinding track ~~formed on a top surface of the bottom grinding ring~~ has a diameter which is held to a circular tolerance within  $\pm 1/16$ [""] inches of its ultimate concentricity.

Claim 23 (currently amended): The ~~bottom grinding ring~~ pulverizer according to claim 21, wherein the continuous arcuate grinding track ~~formed on a top surface of the bottom grinding ring~~ has an arcuate length which is held to a circular tolerance within  $\pm 1/16$ [""] inches of its ultimate curvature.